

Enigma of annular scalp lesions: Unraveling a rare case of sarcoidosis with alopecia

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ABSTRACT

Rarely, sarcoidosis may involve the scalp, usually showing up as alopecia. Non-caseating granulomas typify the multisystem illness known as sarcoidosis. It is essential to identify this form to prevent misdiagnosis, particularly when combined with other inflammatory or infectious scalp disorders. Herein, we describe a 57-year-old man with a two-year history of annular plaques on the scalp, leading to cicatricial alopecia. A biopsy confirmed sarcoidosis, and imaging revealed pulmonary involvement. The patient responded well to corticosteroid therapy. This case underscored the importance of recognizing atypical presentations of sarcoidosis to ensure accurate diagnosis and appropriate management.

Key words: Alopecia, Annular Sarcoidosis, Scalp

INTRODUCTION

Sarcoidosis is a granulomatous systemic disease of unknown etiology. Its dermatological manifestations are highly polymorphic [1]. Classically, they are divided into specific lesions, formed by granulomas, most often of chronic evolution; and non-specific lesions, mainly erythema nodosum of acute evolution. One of the most common signs of sarcoidosis is alopecia, which usually appears as scarring. Herein, we describe an instance of scalp annular sarcoidosis accompanied by alopecia and systemic involvement [1].

CASE REPORT

A 57-year-old married man presented with numerous asymptomatic erythematous patches on his head persistent for two years. After being asymptomatic at first, the lesions rapidly grew in size, quantity, and distribution, eventually impacting more scalp regions. He was given a topical antifungal, yet the lesions persisted, so he came to our facility for more assessment. Upon clinical examination, cicatricial alopecia was found along with several distinct annular plaques

with elevated erythematous to violaceous infiltrated borders distributed over the temporal (Fig. 1), occipital (Fig. 2), frontal, and vertex regions. The rest of the mucocutaneous examination was without incident. Multiple confluent epithelioid granulomas and a somewhat atrophic epidermis with sparse lymphocytic infiltration and isolated fibrinoid necrosis were found in a biopsy taken from the infiltrated edge of a scalp lesion. Pulmonary involvement was discovered by contrast-enhanced computed tomography (CECT) of the thorax. Serum calcium levels were normal according to laboratory tests. However, the angiotensin-converting enzyme (ACE) increased to 64 µg/L. A diagnosis of annular sarcoidosis of the scalp was made in light of these results. After starting 40 mg of oral prednisolone, the patient's condition significantly improved in just three weeks.

DISCUSSION

Sarcoidosis with annular scalp lesions might mimic other dermatological diagnoses, including lichen planopilaris, lupus erythematosus, or tinea capitis, making diagnosis more difficult.

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Figure 1: Annular erythematous and infiltrated scalp lesions with scarring alopecia in the temporo-parietal area.



Figure 2: Annular erythematous and infiltrated scalp lesions with scarring alopecia in the occipital area.

The annular morphology of the lesions may initially lead to a misdiagnosis of fungal infections, delaying appropriate treatment [2]. To differentiate sarcoidosis from other disorders, histological analysis and dermoscopy are essential. Histopathology revealing non-caseating granulomas is a cornerstone in confirming the diagnosis [3]. Advanced imaging modalities such as high-resolution MRI or PET scans may be required to exclude systemic involvement in sarcoidosis, particularly in patients presenting with alopecia as a primary symptom [2].

The management of sarcoidosis with scalp involvement requires a multidisciplinary approach. First-line treatment often involves corticosteroids, either topically or systemically, to control inflammation [3]. For refractory cases, immunosuppressive agents such as

methotrexate, hydroxychloroquine, and tumor necrosis factor- α (TNF- α) inhibitors may be considered [2]. Recent evidence has suggested that TNF- α inhibitors such as infliximab may be effective in managing cutaneous sarcoidosis, although further studies are warranted to establish their full efficacy and safety in scalp involvement specifically [4].

Follow-up is critical in the management of sarcoidosis, given its potential for delayed progression and systemic involvement. It includes regular dermatological evaluations to monitor lesion evolution and prevent irreversible scarring [5], annual systemic assessments, including imaging and pulmonary function tests, to identify asymptomatic organ involvement [6], and multidisciplinary collaboration, involving dermatologists, pulmonologists, and other specialists, to ensure comprehensive care [7].

CONCLUSION

This uncommon case of annular scalp sarcoidosis with cicatricial alopecia demonstrated how difficult it may be to diagnose sarcoidosis due to its numerous appearances. Histopathology and systemic evaluation are crucial for accurate diagnosis, while corticosteroids remain effective for treatment. Long-term follow-up and a multidisciplinary approach are essential in managing potential systemic involvement and preventing complications. This case highlighted the importance of clinical vigilance in atypical sarcoidosis presentations. Further research is needed to optimize management strategies.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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